

This listing of claims will replace all prior versions, and listings, of the claims in this application.

IN THE CLAIMS:

1 1.(Previously Amended) A multivalent immunogenic composition
2 comprising at least four bovine strain reassortant rotaviruses and a physiologically
3 acceptable carrier, wherein each bovine reassortant rotavirus comprises a single human
4 VP7 gene derived from an antigenically distinct serotype and the remaining 10 genes
5 derived from the bovine UK strain, and wherein the composition induces an
6 immunogenic response to each antigenically distinct human rotavirus VP7 serotype
7 without causing a transient low level fever in a statistically significant number of
8 vaccinees when each of the rotavirus reassortant serotype is administered at a dosage of
9 less than $10^{6.0}$ plaque forming units.

1 2.(Previously Amended) The composition of claim 1, wherein the VP7
2 serotype antigen of the bovine rotavirus reassortant is contributed by a human rotavirus.

1 3.(Previously Amended) The composition of claim 2, wherein the human
2 rotavirus is selected from the group consisting of a human rotavirus VP7 serotype 1, a
3 human VP7 serotype 2, a human VP7 serotype 3, a human VP7 serotype 4, a human VP7
4 serotype 5, and a human VP7 serotype 9.

1 4.(Previously Amended) The composition of claim 2, further comprising
2 a bovine rotavirus reassortant comprising a bovine gene encoding a protein with the
3 immunogenic reactivity of a human rotavirus of VP7 serotype 10.

1 5.(Previously Amended) The composition of claim 4, wherein the bovine
2 x bovine reassortant rotavirus comprises a human rotavirus VP7 serotype 10 reactive

- 3 antigen from the bovine rotavirus strain KC-1 as deposited with the American Type
4 Culture Collection and designated ATCC VR-2615.

6.(Cancelled)

- 1 7.(Preciously Amended) The composition of claim 1 which is a
2 quadrivalent immunogenic composition comprising human x bovine reassortant rotavirus
3 of human VP7 serotype 1, human VP7 serotype 2, human VP7 serotype 3, and human
4 VP7 serotype 4.

- 1 8.(Previously Amended) The composition of claim 1 which is a
2 multivalent composition comprising human x bovine reassortant rotavirus of human VP7
3 serotype 1, human VP7 serotype 2, human VP7 serotype 3, human VP7 serotype 4, and
4 human VP7 serotype 5.

- 1 9.(Previously Amended) The composition of claim 1 which is a
2 multivalent composition comprising human x bovine reassortant rotavirus of human VP7
3 serotype 1, human VP7 serotype 2, human VP7 serotype 3, human VP7 serotype 4, and
4 human VP7 serotype 9.

- 1 10.(Previously Amended) The composition of claim 1 which is a
2 multivalent composition comprising human x bovine reassortant rotavirus of human VP7
3 serotype 1, human VP7 serotype 2, human VP7 serotype 3, human VP7 serotype 4,
4 human VP7 serotype 5, and human VP4 serotype 1A.

- 1 11.(Previously Amended) The composition of claim 1 which is a
2 multivalent composition comprising human x bovine reassortant rotavirus of human VP7
3 serotype 1, human VP7 serotype 2, human VP7 serotype 3, human VP7 serotype 4,
4 human VP7 serotype 9, and human VP4 serotype 1A.

- 1 12.(Previously Amended) The composition of claim 1 which is a
2 multivalent composition comprising human x bovine reassortant rotavirus of human VP7

3 serotype 1, human VP7 serotype 2, human VP7 serotype 3, human VP7 serotype 4,
4 human VP7 serotype 5, and human VP7 serotype 9.

1 13.(Previously Amended) The composition of claim 1 which is a
2 multivalent composition comprising human x bovine reassortant rotavirus of human VP7
3 serotype 1, human VP7 serotype 2, human VP7 serotype 3, human VP7 serotype 4,
4 human VP7 serotype 5, human VP7 serotype 9, and human VP4 serotype 1A.

1 14.(Currently Amended) The composition of claim 7 further comprising a
2 bovine reassortant rotavirus comprising a bovine gene encoding a protein with the
3 [immunogenically] immunologic reactivity of a human rotavirus of VP7 serotype 10.

1 15.(Currently Amended) The composition of claim 14, wherein the
2 bovine x bovine reassortant rotavirus comprises a VP7 serotype 10 antigen from the
3 bovine rotavirus strain KC-1 as deposited with the American Type Culture Collection and
4 designated ATCC VR-2615.

1 16.(Previously Amended) The composition of claim 7, wherein the
2 human rotavirus VP7 serotype gene is derived from human rotavirus strain D (serotype
3 1), human rotavirus strain DS-1 (serotype 2), human rotavirus strain P (serotype 3), and
4 human rotavirus strain ST3 (serotype 4).

1 17.(Original) The composition of claim 1, wherein the physiologically
2 acceptable carrier is a citrate buffer.

1 18.(Original) The composition of claim 1 which further comprises an
2 adjuvant to enhance the immune response.

1 19.(Original) The composition of claim 1, wherein the composition is in a
2 lyophilized form.

1 20.(Previously Amended) The composition of claim 7, wherein each
2 bovine reassortant is formulated to provide a dosage of 10^3 to 10^5 plaque forming units.

1 21.(Previously Amended) The composition of claim 7, wherein each
2 bovine reassortant is formulated to provide a dosage of 10^5 to 10^6 plaque forming units.

1 22.(Currently Amended) A method for stimulating the immune system to
2 produce an immunogenic response to human rotavirus VP7 serotype antigen without
3 ~~significant~~ causing transient low level fever in a statistically significant number of
4 vaccinees, which comprises administering a multivalent immunogenic composition
5 comprising at least four bovine UK strain reassortant rotaviruses, wherein each bovine
6 reassortant rotavirus comprises a single human VP7 gene from an antigenically distinct
7 serotype and the remaining 10 genes derived from the bovine UK serotypes of human
8 rotavirus strain each administered at a dosage of less than $10^{6.0}$ plaque forming units and
9 a physiologically acceptable carrier.

1 23.(Previously Amended) The method of claim 22, wherein the
2 composition comprises four human x bovine UK reassortant rotaviruses.

1 24.(Original) The method of claim 22, wherein the human x bovine
2 reassortant rotavirus comprises a human rotavirus VP7 serotype 1 x bovine rotavirus
3 strain UK, a human rotavirus VP7 serotype 2 x bovine rotavirus strain UK, a human
4 rotavirus VP7 serotype 3 x bovine rotavirus strain UK and a human rotavirus VP7
5 serotype 4 x bovine rotavirus strain UK.

1 25.(Original) The method of claim 22, wherein the composition further
2 comprises an adjuvant to enhance the immune response.

1 26.(Original) The method of claim 22, wherein the composition is
2 administered at a dosage of 10^3 to 10^5 plaque forming units.

1 27.(Original) The method of claim 22, wherein the composition is
2 administered at a dosage of 10^5 to 10^6 plaque forming units.

Please cancel claim 28.

1 29.(Original) The method of claim 22 the human x bovine reassortant
2 rotaviruses are administered in a combined composition.

1 30.(Original) The method of claim 22, wherein the composition is
2 administered to the alimentary tract of an individual.

1 31.(Original) The method of claim 30, wherein the composition is
2 administered as a liquid suspension.

1 32.(Previously Amended) The method of claim 22, wherein the method
2 comprises multiple administrations of the composition.

1 33.(Original) The method of claim 32, wherein the method comprises
2 administration of three dosages.

1 34.(New) A method for stimulating the immune system to produce an
2 immunogenic response to human rotavirus VP7 serotype antigen without significant
3 transient low level fever in a statistically significant number of vaccinees, which
4 comprises sequentially administering at least four immunogenic compositions comprising
5 a UK bovine reassortant rotavirus having a different distinct human rotavirus VP7
6 serotype, wherein each composition comprises a dosage of less than $10^{6.0}$ plaque forming
7 units of the bovine reassortant rotavirus and a physiologically acceptable carrier.